COST PROXY MODEL

FORMULAS FOR INVESTMENT CALCULATIONS

The purpose of Page 15.0 and 15.1 is to demonstrate the calculations used in developing the investment for the Outside Plant used in provisioning a local loop. In order to demonstrate these calculations it is necessary to establish the "A Cost" and "B Cost" for the cables. Since Pacific Bell's material costs are proprietary, dummy costs will be used:

TYPE OF CABLE	FRC	A COST $ / Sheath-foot	B COST $ / Pair-foot
Copper Underground Cable	5C	3.00	0.0100
Copper Buried Cable	45C	7.00	0.0100
Copper Aerial Cable	12C	3.00	0.0100
Fiber Underground Cable	85C	2.00	0.0600
Fiber Buried Cable	845C	8.00	0.0600
Fiber Aerial Cable	812C	2.00	0.0600

For this demonstraction only A and B costs for one copper and one fiber cable is required in each formula. Nomally each formula would be used for each type of cable.

For demonstraction purposes dummy cable sizes, modification factors, utilization percentages, pole line cost, conduit costs, and number of channels will also be used:

Copper Cable Size	550 pairs	Fiber Cable Size	48 fibers
Modification Factor	1.10	Cable Utilization	75%
Number of Channels	672	Equipment Utilization	80%
Pole Line Cost per Foot	4.02	Conduit Cost per Duct-Foot	12.00

The length for all calculation will be 1000 feet. In the model the length would be calculated by multipling the feeder or distribution length by the appropriate % mix from the appropriate density zone to determine the cable length for each type of cable (underground, buried and aerial). In the calculation for fiber cables "4 Fibers" is multiplied

In the calculation for fiber cables, the cable size is multiplied by "4 Fibers". The calculation is required to reflect the 4 fibers used for each digital loop carrier system (two working fibers and two protection fibers).

COST PROXY MODEL

FORMULAS FOR CALCULATING THE INVESTMENT PER LOOP

COPPER CABLES - FRCs 5C, 12C, & 45C
(use Buried Copper Cable - 45C)

Length x [(A-Cost + (B-Cost x Cable Size)) / Cable Size / Cable Utilization x Modifying Factor]

1000 x [(7.00 + (.0100 x 550)) / 550 /.75 x 1.10] = 33.33

FIBER CABLES - FRCs 85C, 812C, & 845C
(use Aerial Fiber Cable - 812C)

Length x{[((A-Cost + (B-Cost x Cable Size)) / Cable Size) x 4 Fibers / Cable Utilization x Modifying Factor] / (# of Channels x Equipment Utilization)}

1000 x {[((2.00 + (.0600 x 48)) / 48) x 4 / .75 x 1.10] / (672 x .80)} = 1.11

POLE LINE INVESTMENT - FRC 1C FOR COPPER CABLES

<u>FEEDER</u>

Length x (Pole Line / Cable Size / Cable Utilization) x 2nd Cable Factor

1000 x (4.02 / 550 / .75) x .80 = 7.80

<u>DISTRIBUTION</u>

Length x (Pole Line / Cable Size / Cable Utilization)

1000 x (4.02 / 550 / .75) = 9.75

POLE LINE INVESTMENT - FRC 1C FOR FIBER CABLES

Length x [((Pole Line / Cable Size) x 4 Fibers / Cable Utilization)) / (Channels x Equipment Utilization)]

1000 x [((4.02 / 48) x 4 / .75) / (672 x .80)] = .83

CONDUIT INVESTMENT - FRC 4C FOR COPPER CABLES

Length x (Conduit / Cable Size / Cable Utilization)

1000 x (12.00 / 550 / .75) = 29.09

CONDUIT INVESTMENT - FRC 4C FOR FIBER CABLES

Length x [((Conduit / Cable Size) x 4 Fibers / Cable Utilization) / (Channels x Equipment Utilization)] / 3

1000 x [((12.00 / 48) x 4 / .75) / (672 x .80)] /3 = .83

COST PROXY MODEL

HOW THE INVESTMENTS ARE CALCULATED FOR THE LOCAL LOOP

The purpose of this handout is to provide examples of how the COST PROXY MODEL calculates the investments for the local loop. In order to provide this example, the "A and B Costs" for cables must be shown. Since Pacific Bell's A and B Costs are considered proprietary, dummy A and B Costs will be used for these examples :

UNIT DESCRIPTION	FRC (Field Reporting Code)	A COST ($ / SH-FT)	B COST ($ / PR-FT or FIBER-FT)
COPPER UNDERGROUND CABLE	5C	3.00	0.0100
COPPER BURIED CABLE	45C	7.00*	0.0100
COPPER AERIAL CABLE	12C	3.00	0.0100
FIBER UNDERGROUND CABLE	85C	2.00	0.0600
FIBER BURIED CABLE	845C	8.00*	0.0600
FIBER AERIAL CABLE	812C	2.00	0.0600

* Includes trenching cost

In addition to these unit investments, all the unit investments and modifying factors from the Cost Proxy Model package will be used. When an unit investment or factor from that package is used, the page number (PAGE 1.0) is shown for the table the investment or factor was taken from.

Typical customer record for a loop with feeder length UNDER 9000 feet (data contained in the record but not related to these calculations was omitted for clarity)

DISTRIBUTION

CLASS OF SERVICE	WIRE CENTER (CLLI)	SAI (TAPER CODE #)	CBG	DISTRIBUTIO DISTANCE	CUSTOMER LATITUDE	CUSTOMER LONGITUDE	SAI LATITUDE	SAI LONGITUDE	DIST. DENSITY	DIST. TERRAIN
1FR	PLMOCA11	210201	6050002004	1299	38.46	-120.81	38.47	-120.82	Z2	M

The first step made in the model is to determine the distribution cable lengths by technology (UG, buried, and aerial). To accomplish this the model uses the "DISTRIBUTION DISTANCE" and the % MIX for distribution from the table on PAGE 1.0. The model uses the "DIST DENSITY" (Z2 = Density 11 - 50) to determine which % mix to use from that table. The "DIST DENSITY" is also used to select the average distribution cable sizes from PAGE 2.0, the level of utilization from PAGE 3.0, and combined with the "DIST TERRAIN" (M = Medium Difficulty) it selects the modifying factor for terrain for each technology from PAGES 7.0, 8.0, and 9.0.

LENGTH OF DISTRIBUTION BY TECHNOLOGY

TYPE OF CABLE	DIST. LENGTH	% MIX (PAGE 1.0)	LENGTHS	AVERAGE DISTRIBUTION CABLE SIZE (PAGE 2.0)	AVERAGE DISTRIBUTION UTILIZATION % (PAGE 3.0)	MODIFYING FACTOR (PAGE 7.0, 8.0, & 9.0)
UNDERGROUND	1299	3%	39 Feet	243 Pairs	36%	1.00
BURIED	1299	60%	779 Feet	298 Pairs	36%	1.26
AERIAL	1299	37%	481 Feet	201 Pairs	36%	1.00

COST PROXY MODEL

The investments for distribution cables are calculated using these numbers:

TYPE OF CABLE	FORMULA	Length x [(A-Cost + (B-Cost x Cable Size)) / Cable Size / Cable Utilization x Modifying Factor]
UNDERGROUND		39 feet x ((3.00 + (.0100 x 243 pairs)) / 243 pairs / 36% x 1.00) = $2.42
BURIED		779 feet x ((7.00 + (.0100 x 298 pairs)) / 298 pairs / 36% x 1.26) = $91.31
AERIAL		481 feet x ((3.00 + (.0100 x 201 pairs)) / 201 pairs / 36% x 1.00) = $33.30

The investments for supporting structure are calculated using the cable lengths of the technology requiring the structure. Conduit uses the length of underground cable and pole line uses the aerial cable length. The model uses the "DIST DENSITY" (Z2 = Density 11 - 50) and the "DIST TERRAIN" (M = Medium Difficulty) to determine which structure unit investments to use from PAGE 4.0 (Pole Line) and PAGE 6.2 (Conduit for Distribution). These investments are multiplied by the length and then divided by the cable size and cable utilization to develop the structure investment per pair-foot.

Pole Line Unit Investment (PAGE 4.0) = $4.96

Conduit Unit Investment (PAGE 6.2) = $9.50

TYPE OF STRUCTURE	FORMULA	Length x (Pole Line / Cable Size / Cable Utilization)
	FORMULA	Length x (Conduit / Cable Size / Cable Utilization)
POLE LINE		481 feet x (4.96 / 201 pairs / 36%) = $32.97
CONDUIT		39 feet x (9.50 / 243 pairs / 36%) = $4.24

The final investments to be determined for the distribution are the terminal and service drop investments. These investments are not calculated in the model, they're taken right off the tables on PAGE 10.0 (Terminals) and PAGE 11.0 (Drops) using the density zone for distribution.

Terminal Investment (Density 11 - 50) = $232.20

Service Drop Investment (Density 11 -50) = $160.67

FEEDER

The investments for copper feeder cables and their supporting structure are calculated in a similar manner using the data from the customer record pertaining to the feeder plant.

CLASS OF SERVICE	WIRE CENTER (CLLI)	SAI (TAPER CODE #)	CBG	FEEDER DISTANCE	WIRE CENTER LATITUDE	WIRE CENTER LONGITUDE	SAI LATITUDE	SAI LONGITUDE	FEEDER DENSITY	FEEDER TERRAIN
1FR	PLMOCA11	210201	6050002004	6300	38.48	-120.84	38.47	-120.82	Z2	M

LENGTH OF COPPER FEEDER BY TECHNOLOGY

TYPE OF CABLE	FEEDER LENGTH	% MIX (PAGE 1.0)	LENGTHS	AVERAGE COPPER FEEDER CABLE SIZE (PAGE 2.0)	AVERAGE COPPER FEEDER UTILIZATION % (PAGE 3.0)	MODIFYING FACTOR (PAGE 7.0, 8.0, & 9.0)
UNDERGROUND	6300	39%	2457 Feet	952 Pairs	59%	1.00
BURIED	6300	16%	1008 Feet	182 Pairs	59%	1.26
AERIAL	6300	45%	2835 Feet	248 Pairs	59%	1.00

COST PROXY MODEL

The investments for copper feeder cables are calculated using these numbers:

TYPE OF CABLE	FORMULA	Length x [(A-Cost + (B-Cost x Cable Size)) / Cable Size / Cable Utilization x Modifying Factor]
UNDERGROUND		2457 feet x ((3.00 + (.0100 x 952 pairs)) / 952 pairs / 59% x 1.00) = $54.77
BURIED		1008 feet x ((7.00 + (.0100 x 182 pairs)) / 182 pairs / 59% x 1.26) = $104.32
AERIAL		2835 feet x ((3.00 + (.0100 x 248 pairs)) / 248 pairs / 59% x 1.00) = $106.18

Pole Line Unit Investment (PAGE 4.2) = $4.91 Conduit Unit Investment (PAGE 5.0) = $20.25

TYPE OF STRUCTURE	FORMULA	Length x (Pole Line / Cable Size / Cable Utilization) Length x (Conduit / Cable Size / Cable Utilization)
POLE LINE		2835 feet x (4.91 / 248 pairs / 59%) = $95.13
CONDUIT		2457 feet x (20.25 / 952 pairs / 59%) = $88.58

The final investment for the feeder is the SAI (Serving Area Interface) and is obtained directly from the table on PAGE 12.0.

SAI Investment (Density 11 - 50) = $64.39

SUMMARY OF OUTSIDE PLANT INVESTMENTS

	Description of Plant	Units	Investment
Distribution Plant			
	Underground Copper Cable	39	$2.42
	Buried Copper Cable	779	$91.31
	Aerial Copper Cable	481	$33.30
	Pole Line	481	$32.97
	Conduit	39	$4.24
	Terminal	1	$232.20
	Service Drop	1	$160.67
		Total Distribution	$557.11
Feeder Plant			
	Underground Copper Cable	2457	$54.77
	Buried Copper Cable	1008	$104.32
	Aerial Copper Cable	2835	$106.18
	Pole Line	2835	$95.13
	Conduit	2457	$88.58
	SAI	1	$64.39
		Total Feeder	$513.37

TOTAL LOOP (< 9000") $1,070.48

COST PROXY MODEL

Typical customer record for a loop with feeder length OVER 9000 feet (data contained in the record but not related to these calculations was omitted for clarity)

CLASS OF SERVICE	WIRE CENTER (CLLI)	SAI (TAPER CODE #)	CBG	DISTRIB. DISTANCE	CUSTOMER LATITUDE	CUSTOMER LONGITUDE	SAI LATITUDE	SAI LONGITUDE	DIST. DENSITY	DIST. TERRAIN
1FR	STCKCA11	210701	6050002006	4622	38.41	-120.76	38.41	-120.78	Z2	M

The first step made in the model is to determine the distribution cable lengths by technology (UG, buried, and aerial). To accomplish this the model uses the "DISTRIBUTION DISTANCE" and the % MIX for distribution from the table on PAGE 1.0. The model uses the "DIST DENSITY" (Z2 = Density 11 - 50) to determine which % mix to use from that table. The "DIST DENSITY" is also used to select the average distribution cable sizes from PAGE 2.0, the level of utilization from PAGE 3.0, and combined with the "DIST TERRAIN" (M = Medium Difficulty) it selects the modifying factor for terrain for each technology from PAGES 7.0, 8.0, and 9.0.

LENGTH OF DISTRIBUTION BY TECHNOLOGY

TYPE OF CABLE	DIST. LENGTH	% MIX (PAGE 1.0)	LENGTHS	AVERAGE DISTRIBUTION CABLE SIZE (PAGE 2.0)	AVERAGE DISTRIBUTION UTILIZATION % (PAGE 3.0)	MODIFYING FACTOR (PAGE 7.0, 8.0, & 9.0)
UNDERGROUND	4622	3%	139 Feet	243 Pairs	36%	1.00
BURIED	4622	60%	2773 Feet	298 Pairs	36%	1.26
AERIAL	4622	37%	1710 Feet	201 Pairs	36%	1.00

The investments for distribution cables are calculated using these numbers:

TYPE OF CABLE	FORMULA	Length x [(A-Cost + (B-Cost x Cable Size)) / Cable Size / Cable Utilization x Modifying Factor]
UNDERGROUND		139 feet x ((3.00 + (.0100 x 243 pairs)) / 243 pairs / 36% x 1.00) = $8.63
BURIED		2773 feet x ((7.00 + (.0100 x 298 pairs)) / 298 pairs / 36% x 1.26) = $325.04
AERIAL		1710 feet x ((3.00 + (.0100 x 201 pairs)) / 201 pairs / 36% x 1.00) = $118.40

The investments for supporting structure are calculated using the cable lengths of the technology requiring the structure. Conduit uses the length of underground cable and pole line uses the aerial cable length. The model uses the "DIST DENSITY" (Z2 = Density 11 - 50) and the "DIST TERRAIN" (M = Medium Difficulty) to determine which structure unit investments to use from PAGE 4.0 (Pole Line) and PAGE 6.2 (Conduit for Distribution). These investments are multiplied by the length and then divided by the cable size and cable utilization to develop the structure investment per pair-foot.

Pole Line Unit Investment (PAGE 4.0) = $4.96

Conduit Unit Investment (PAGE 6.2) = $9.50

TYPE OF STRUCTURE	FORMULA	Length x (Pole Line / Cable Size / Cable Utilization)
	FORMULA	Length x (Conduit / Cable Size / Cable Utilization)
POLE LINE		1710 feet x (4.96 / 201 pairs / 36%) = $117.21
CONDUIT		139 feet x (9.50 / 243 pairs / 36%) = $15.09

COST PROXY MODEL

The final investments to be determined for the distribution are the terminal and service drop investments. These investments are not calculated in the model, they're taken right off the tables on PAGE 10.0 (Terminals) and PAGE 11.0 (Drops) using the density zone for distribution.

Terminal Investment (Density 11 - 50) = $232.20 Service Drop Investment (Density 11 -50) = $160.67

Since the feeder portion of this loop is OVER 9000, the investments are based on fiber feeder cables. The investments for fiber cables and their supporting structure are calculated in a similar manner using the data from the customer record pertaining to the feeder plant.

CLASS OF SERVICE	WIRE CENTER (CLLI)	SAI (TAPER CODE #)	CBG	FEEDER DISTANCE	WIRE CENTER LATITUDE	WIRE CENTER LONGITUDE	SAI LATITUDE	SAI LONGITUDE	FEEDER DENSITY	FEEDER TERRAIN
1FR	STCKCA11	210701	6050002006	15400	38.41	-120.78	38.4	-121.73	Z3	M

Note: The FEEDER DENSITY for this loop is different from the distribution density (Z3 = Density 51 - 150).

LENGTH OF FIBER FEEDER BY TECHNOLOGY

TYPE OF CABLE	FEEDER LENGTH	% MIX (PAGE 1.0)	LENGTHS	AVERAGE FIBER CABLE CABLE SIZE (PAGE 2.0)	AVERAGE FIBER CABLE UTILIZATION % (PAGE 3.0)	MODIFYING FACTOR (PAGE 7.0, 8.0, & 9.0)
UNDERGROUND	15400	66%	10164 Feet	48 Fibers	67%	1.00
BURIED	15400	7%	1078 Feet	48 Fibers	67%	1.24
AERIAL	15400	27%	4158 Feet	24 Fibers	67%	1.00

The investments for fiber feeder cables are calculated using these numbers plus the "EQUIPMENT UTILIZATION" (PAGE 3.0) and the "CHANNEL CAPACITY" (PAGE 13.0):

Pair-Gain Equipment Utilization = 71%
Channel Capacity of Equipment = 96

TYPE OF CABLE	FORMULA	Length x{[((A-Cost + (B-Cost x Cable Size)) / Cable Size) x 4 Fibers / Cable Utilization x Modifying Factor] / (# of Channels x Equipment Utilization)}
UNDERGROUND		10164 x {[((2.00 + (.0600 x 48)) / 48) x 4 / .67 x 1.00] / (96 x .71)} = $90.51
BURIED		1078 x {[((8.00 + (.0600 x 48)) / 48) x 4 / .67 x 1.24] / (96 x .71)} = $26.54
AERIAL		4158 x {[((2.00 + (.0600 x 24)) / 24) x 4 / .67 x 1.00] / (96 x .71)} = $87.00

Pole Line Unit Investment (PAGE 4.2) = $5.53

Conduit Unit Investment <9000 ft.(PAGE 5.0) = $24.48
Conduit Unit Investment >9000 ft.(PAGE 6.0) = $35.65

TYPE OF STRUCTURE	FORMULA	Length x [((Pole Line / Cable Size) x 4 Fibers / Cable Utilization)) / (# of Channels x Equipment Utilization)]
	FORMULA	Length x [((Conduit / Cable Size) x 4 Fibers / Cable Utilization) / (# of Channels x Equipment Utilization)] / 3 Innerducts Per Duct
POLE LINE		4158 x [((5.53 / 24) x 4 / .67) / (96 x .71)] = $83.92
CONDUIT	<9000 ft	9000 x [((24.48 / 48) x 4 / .67) / (96 x .71)] / 3 = $134.01
	>9000 ft.	(10164-9000) x [((35.65 / 48) x 4 / .67) / (96 x .71)] / 3 = $25.24

COST PROXY MODEL

The final investments for the fiber feeder are the SAI (Serving Area Interface) and DLC (Digital Loop Carrier) Equipment. The SAI investment can be obtained directly from the table on PAGE 12.0. The DLC investments are on PAGE 13.0. There are two investments for DLC, a fixed and a variable investment. The fixed investment is per location and is divided by the working lines to determine the "Fixed" investment per line. The working lines are calculated by multiplying the channel capacity by the pair-gain equipment utilization (Page 3.0). The variable investment is already an investment per line.

SAI Investment (Density 51 - 150) = $34.39

DLC Investments (Density 51 - 150) :
Fixed = 34800 / (96 x .71) = $510.56
Variable = $271.00
Total DLC Investment per line = $781.56

SUMMARY OF OUTSIDE PLANT INVESTMENTS

	Description of Plant	Units	Investment
Distribution Plant			
	Underground Copper Cable	139	$8.63
	Buried Copper Cable	2773	$325.04
	Aerial Copper Cable	1710	$118.40
	Pole Line	1710	$117.21
	Conduit	139	$15.09
	Terminal	1	$232.20
	Service Drop	1	$160.67
		Total Distribution	$977.24
Feeder Plant			
	Underground Fiber Cable	10164	$90.51
	Buried Fiber Cable	1078	$26.54
	Aerial Fiber Cable	4158	$52.20
	Pole Line	4158	$83.92
	Conduit	10164	$159.25
	SAI	1	$34.39
	DLC	1	$781.56
		Total Feeder	$1,228.37

TOTAL LOOP (> 9000") $2,205.61

CALIFORNIA
R 95-01-020
I 95-01-021
ALJ WONG

EXH ... 96
MAY 96

location	switches required	equipped lines	EO switching, per line	wire center, per line	tdm trks required (local)	tdm trk invest per line (lcl)	OS trks required	OS trk invest per line	tdm, per line	OS tdm, per line	STP, per line	# links required	link investment per line
ETNACAXF	1	1,204	$ 293	$ 67	16	$ 5.88	2	$ 0.83	$ 7.21	$ 4.38	$ 18.02	2	$ 1.72
FTJNCAXF	1	843	$ 300	$ 88	13	$ 8.14	2	$ 0.84	$ 7.21	$ 4.38	$ 18.02	2	$ 2.48
HCMPCAXF	1	1,380	$ 290	$ 66	21	$ 7.20	2	$ 0.80	$ 7.21	$ 4.38	$ 18.02	2	$ 1.58
SWBRCAXF	1	584	$ 304	$ 59	8	$ 5.84	1	$ 0.86	$ 7.21	$ 4.38	$ 18.02	2	$ 3.56

		FEEDER		Copper Feeder									Total	Fiber Base Data		
Office	Quadrant	Distance A	Distance B	Size A	Size Last B	#Max Cs in B	Last B Cost	Max Cs Costs	B Sgmt $	A Sgmt $	BG $ wirealloc	Structure $	Cpr BG $	Size A	A $	Size B
ETNACAXF	2	0.00	18,861.13	N/A	0	0	$0	$0	$0	$0	$0	$0	$0	N/A	0.00	12
ETNACAXF	3	0.00	1,824.88	N/A	800	0	$9,236	$0	$9,236	$0	$9,236	$3,350	$12,586	N/A	0.00	0
FTJNCAXF	2	0.00	43,818.22	N/A	0	0	$0	$0	$0	$0	$0	$0	$0	N/A	0.00	12
HCMPCAXF	1	0.00	48,110.30	N/A	0	0	$0	$0	$0	$0	$0	$0	$0	N/A	0.00	12
HCMPCAXF	2	0.00	3,878.91	N/A	800	0	$22,886	$0	$22,886	$0	$22,886	$9,453	$32,148	N/A	0.00	0
HCMPCAXF	4	0.00	48,826.73	N/A	0	0	$0	$0	$0	$0	$0	$0	$0	N/A	0.00	12
SWBRCAXF	4	0.00	14,632.33	N/A	0	0	$0	$0	$0	$0	$0	$0	$0	N/A	0.00	12

			SLC on Fiber			Total						Total
Office	SLC B Sgmt $	SLC A Sgmt $	BG $ wirealloc	Structure $	Electronics $	SLC $	APC B Sgmt $	A Sgmt $	BG $ wirealloc	Structure $	Electronics $	APC $
ETNACAXF	0.00	0.00	0.00	0.00	0.00	0.00	8,830.82	0.00	8,830.82	18,956.57	326,331.18	366,118.56
ETNACAXF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FTJNCAXF	0.00	0.00	0.00	0.00	0.00	0.00	25,988.10	0.00	25,988.10	52,514.27	318,101.34	384,484.70
HCMPCAXF	0.00	0.00	0.00	0.00	0.00	0.00	27,223.62	0.00	27,223.62	41,706.44	206,642.30	275,672.20
HCMPCAXF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HCMPCAXF	0.00	0.00	0.00	0.00	0.00	0.00	28,827.30	0.00	28,827.30	58,518.43	121,223.33	208,570.06
SWBRCAXF	0.00	0.00	0.00	0.00	0.00	0.00	8,638.93	0.00	8,638.93	13,234.83	218,918.08	240,791.84

	Total				Total	Grand Total		
Office	Feeder Cost	Distr Dist	Distr Base Cost	Distr Structure	Distr Cost	Tll Loop Cost	Density	Households
ETNACAXF	$366,119	78,882	$1,816,833	$670,411	$2,487,244	$2,843,363	1.58	870
ETNACAXF	$12,586	2,800	$21,086	$7,661	$28,747	$41,333	483.78	334
FTJNCAXF	$384,485	57,740	$1,316,360	$306,712	$1,623,071	$2,017,556	2.91	843
HCMPCAXF	$275,872	84,880	$1,384,518	$322,593	$1,707,111	$1,982,983	0.71	561
HCMPCAXF	$32,148	8,847	$100,237	$38,882	$138,129	$171,270	128.37	518
HCMPCAXF	$208,670	104,768	$791,162	$291,938	$1,083,101	$1,291,671	0.34	323
SWBRCAXF	$240,792	112,013	$1,637,822	$381,812	$2,019,434	$2,260,226	0.53	584

$10 million

company*	cll	census blck grp	Quadrant	B	"A" Portn Fdr	Distr Distnc	tothh	density-tothh/sqml	Dist Cs Multplr	Fdr Cs Multplr	Fiber Multplr
SISKIYOU TEL CO	ETNACAXF	60930008001	2	18,861	0	78,882	870.2184179	1.58	0.389	0.428	2.03
SISKIYOU TEL CO	ETNACAXF	60930008002	3	1,828	0	2,800	334.1740163	483.78	0.3627	0.3627	1.8262
SISKIYOU TEL CO	FTJNCAXF	60930008001	2	43,818	0	57,740	842.9380084	2.91	0.233	0.302	2.03
SISKIYOU TEL CO	HCMPCAXF	60930006001	1	48,110	0	84,880	561.046135	0.71	0.233	0.302	1.532
SISKIYOU TEL CO	HCMPCAXF	60930006002	2	3,879	0	8,847	516.582768	128.37	0.389	0.4166	1.8676
SISKIYOU TEL CO	HCMPCAXF	60930006003	4	48,827	0	104,768	323.2822117	0.34	0.389	0.428	2.03
SISKIYOU TEL CO	SWBRCAXF	60930008003	4	14,632	0	112,013	583.7815488	0.53	0.233	0.302	1.532

cll	company name	cbg	quadrant	omega	alpha	dist ft	tothh	area sq miles	density tothh/area	Rock Depth	Rock Hrdns	Surf Tex	Wtr Tbl Dpth	bus lines	res lines	lata
ETNACAXF	SISKIYOU TEL CO	60930008001	2	116.12	28.12	18,546	870	404.99	1.58	37.36294118		GRV-L	8		870	724
ETNACAXF	SISKIYOU TEL CO	60930008002	3	171.42	8.50	1,843	334	0.5	483.78	60		L	2.625		334	724
FTJNCAXF	SISKIYOU TEL CO	60930008001	2	98.88	8.88	44,134	843	212.8	2.91	36.42857143	SOFT	GR-L	3.921428572		843	724
HCMPCAXF	SISKIYOU TEL CO	60930006001	1	21.78	21.78	49,866	561	571.78	0.71	42.7		GR-SL	5.3076		561	724
HCMPCAXF	SISKIYOU TEL CO	60930006002	2	131.78	41.78	4,932	518	2.89	128.37	60		GRV-S	6		518	724
HCMPCAXF	SISKIYOU TEL CO	60930006003	4	247.56	22.44	52,827	323	699.81	0.34	41.3	HARD	LWB	5.576		323	724
SWBRCAXF	SISKIYOU TEL CO	60930008003	4	307.7	37.7	18,493	584	900.11	0.53	41.3		SL	5.575		584	724